Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	397	dual specificity phosphatase$1	US-PGPUB; USPAT	ADJ	OFF	2005/07/14 11:18
L2	69	1 near6 human	US-PGPUB; USPAT	ADJ	OFF	2005/07/14 11:19

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  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:59:36 ON 14 JUL 2005

=> fil .bec
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 15:59:46 ON 14 JUL 2005
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s dual specificity phosphatase# or dsp?
FILE 'MEDLINE'
         51733 DUAL
        486913 SPECIFICITY
        108671 PHOSPHATASE#
           366 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          2506 DSP?
L1        2831 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'SCISEARCH'
         90554 DUAL
        164909 SPECIFICITY
         73011 PHOSPHATASE#
           543 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          6313 DSP?
L2        6811 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'LIFESCI'
         13259 "DUAL"
         67388 "SPECIFICITY"
         22786 PHOSPHATASE#
           147 DUAL SPECIFICITY PHOSPHATASE#
                 ("DUAL"(W)"SPECIFICITY"(W)PHOSPHATASE#)
           926 DSP?
L3        1059 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'BIOTECHDS'
          1261 DUAL
         10534 SPECIFICITY
          4420 PHOSPHATASE#
            30 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
           115 DSP?
L4         134 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'BIOSIS'
         52515 DUAL
        189717 SPECIFICITY
        113331 PHOSPHATASE#
           367 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          2820 DSP?
L5        3144 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'EMBASE'
         48716 "DUAL"
        211598 "SPECIFICITY"
```

```
         80338 PHOSPHATASE#
           332 DUAL SPECIFICITY PHOSPHATASE#
                 ("DUAL"(W)"SPECIFICITY"(W)PHOSPHATASE#)
          2348 DSP?
L6        2644 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'HCAPLUS'
         82674 DUAL
        176025 SPECIFICITY
        122184 PHOSPHATASE#
           466 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          4664 DSP?
L7        5079 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'NTIS'
         13288 DUAL
          3352 SPECIFICITY
           747 PHOSPHATASE#
             6 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
           620 DSP?
L8         624 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'ESBIOBASE'
         21005 DUAL
         68541 SPECIFICITY
         28231 PHOSPHATASE#
           317 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          1067 DSP?
L9        1344 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'BIOTECHNO'
         10638 DUAL
         87045 SPECIFICITY
         25111 PHOSPHATASE#
           204 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
           562 DSP?
L10        741 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

FILE 'WPIDS'
         58353 DUAL
          9371 SPECIFICITY
          4947 PHOSPHATASE#
            30 DUAL SPECIFICITY PHOSPHATASE#
                 (DUAL(W)SPECIFICITY(W)PHOSPHATASE#)
          4600 DSP?
L11       4618 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

TOTAL FOR ALL FILES
L12      29029 DUAL SPECIFICITY PHOSPHATASE# OR DSP?

=> s l12(10a)(gene/q or human)
FILE 'MEDLINE'
       1269134 HUMAN
L13        314 L1 (10A)(GENE/Q OR HUMAN)

FILE 'SCISEARCH'
       1203816 HUMAN
L14        322 L2 (10A)(GENE/Q OR HUMAN)

FILE 'LIFESCI'
```

```
        360592 HUMAN
L15        163 L3 (10A)(GENE/Q OR HUMAN)

FILE 'BIOTECHDS'
         73867 HUMAN
L16         55 L4 (10A)(GENE/Q OR HUMAN)

FILE 'BIOSIS'
       6470545 HUMAN
L17        320 L5 (10A)(GENE/Q OR HUMAN)

FILE 'EMBASE'
       5451661 HUMAN
L18        244 L6 (10A)(GENE/Q OR HUMAN)

FILE 'HCAPLUS'
       1450466 HUMAN
L19        522 L7 (10A)(GENE/Q OR HUMAN)

FILE 'NTIS'
         85958 HUMAN
L20         11 L8 (10A)(GENE/Q OR HUMAN)

FILE 'ESBIOBASE'
        446947 HUMAN
L21        218 L9 (10A)(GENE/Q OR HUMAN)

FILE 'BIOTECHNO'
        735552 HUMAN
L22        187 L10(10A)(GENE/Q OR HUMAN)

FILE 'WPIDS'
        164992 HUMAN
L23         99 L11(10A)(GENE/Q OR HUMAN)

TOTAL FOR ALL FILES
L24       2455 L12(10A)(GENE/Q OR HUMAN)

=> s l24 not 2001-2005/py
FILE 'MEDLINE'
       2526292 2001-2005/PY
L25        165 L13 NOT 2001-2005/PY

FILE 'SCISEARCH'
       4709965 2001-2005/PY
                 (20010000-20059999/PY)
L26        166 L14 NOT 2001-2005/PY

FILE 'LIFESCI'
        446970 2001-2005/PY
L27         92 L15 NOT 2001-2005/PY

FILE 'BIOTECHDS'
        104980 2001-2005/PY
L28         19 L16 NOT 2001-2005/PY

FILE 'BIOSIS'
       2258182 2001-2005/PY
L29        165 L17 NOT 2001-2005/PY

FILE 'EMBASE'
       2163216 2001-2005/PY
L30        132 L18 NOT 2001-2005/PY
```

```
FILE 'HCAPLUS'
       4744712 2001-2005/PY
L31         221 L19 NOT 2001-2005/PY

FILE 'NTIS'
         68839 2001-2005/PY
L32           7 L20 NOT 2001-2005/PY

FILE 'ESBIOBASE'
       1317879 2001-2005/PY
L33          97 L21 NOT 2001-2005/PY

FILE 'BIOTECHNO'
        368875 2001-2005/PY
L34         112 L22 NOT 2001-2005/PY

FILE 'WPIDS'
       4252353 2001-2005/PY
L35          30 L23 NOT 2001-2005/PY

TOTAL FOR ALL FILES
L36        1206 L24 NOT 2001-2005/PY

=> s l12(2w)3
FILE 'MEDLINE'
       2818713 3
L37          47 L1 (2W)3

FILE 'SCISEARCH'
       2708840 3
L38          55 L2 (2W)3

FILE 'LIFESCI'
        436558 3
L39           9 L3 (2W)3

FILE 'BIOTECHDS'
        152294 3
L40           5 L4 (2W)3

FILE 'BIOSIS'
       2498690 3
L41          50 L5 (2W)3

FILE 'EMBASE'
       1716324 3
L42          28 L6 (2W)3

FILE 'HCAPLUS'
       6333050 3
L43          67 L7 (2W)3

FILE 'NTIS'
        296622 3
L44           6 L8 (2W)3

FILE 'ESBIOBASE'
        793650 3
L45          25 L9 (2W)3

FILE 'BIOTECHNO'
        485790 3
L46          20 L10(2W)3
```

```
FILE 'WPIDS'
       4520732 3
L47          64 L11(2W)3

TOTAL FOR ALL FILES
L48         376 L12(2W) 3

=> s l36 and l48
FILE 'MEDLINE'
L49           1 L25 AND L37

FILE 'SCISEARCH'
L50           1 L26 AND L38

FILE 'LIFESCI'
L51           1 L27 AND L39

FILE 'BIOTECHDS'
L52           1 L28 AND L40

FILE 'BIOSIS'
L53           0 L29 AND L41

FILE 'EMBASE'
L54           0 L30 AND L42

FILE 'HCAPLUS'
L55           2 L31 AND L43

FILE 'NTIS'
L56           0 L32 AND L44

FILE 'ESBIOBASE'
L57           1 L33 AND L45

FILE 'BIOTECHNO'
L58           1 L34 AND L46

FILE 'WPIDS'
L59           1 L35 AND L47

TOTAL FOR ALL FILES
L60           9 L36 AND L48

=> s l12(5a)human and l12(5a)gene/q
FILE 'MEDLINE'
       1269134 HUMAN
            81 L1 (5A)HUMAN
           179 L1 (5A)GENE/Q
L61         28 L1 (5A)HUMAN AND L1 (5A)GENE/Q

FILE 'SCISEARCH'
       1203816 HUMAN
            68 L2 (5A)HUMAN
           193 L2 (5A)GENE/Q
L62         18 L2 (5A)HUMAN AND L2 (5A)GENE/Q

FILE 'LIFESCI'
        360592 HUMAN
            29 L3 (5A)HUMAN
           109 L3 (5A)GENE/Q
L63         10 L3 (5A)HUMAN AND L3 (5A)GENE/Q

FILE 'BIOTECHDS'
```

```
         73867 HUMAN
            10 L4  (5A)HUMAN
            38 L4  (5A)GENE/Q
L64          8 L4  (5A)HUMAN AND L4  (5A)GENE/Q

FILE 'BIOSIS'
       6470545 HUMAN
            86 L5  (5A)HUMAN
           203 L5  (5A)GENE/Q
L65         37 L5  (5A)HUMAN AND L5  (5A)GENE/Q

FILE 'EMBASE'
       5451661 HUMAN
            54 L6  (5A)HUMAN
           137 L6  (5A)GENE/Q
L66         15 L6  (5A)HUMAN AND L6  (5A)GENE/Q

FILE 'HCAPLUS'
       1450466 HUMAN
           138 L7  (5A)HUMAN
           367 L7  (5A)GENE/Q
L67         86 L7  (5A)HUMAN AND L7  (5A)GENE/Q

FILE 'NTIS'
         85958 HUMAN
             2 L8  (5A)HUMAN
             6 L8  (5A)GENE/Q
L68          0 L8  (5A)HUMAN AND L8  (5A)GENE/Q

FILE 'ESBIOBASE'
        446947 HUMAN
            50 L9  (5A)HUMAN
           131 L9  (5A)GENE/Q
L69         19 L9  (5A)HUMAN AND L9  (5A)GENE/Q

FILE 'BIOTECHNO'
        735552 HUMAN
            33 L10(5A)HUMAN
           118 L10(5A)GENE/Q
L70         13 L10(5A)HUMAN AND L10(5A)GENE/Q

FILE 'WPIDS'
        164992 HUMAN
             8 L11(5A)HUMAN
            58 L11(5A)GENE/Q
L71          2 L11(5A)HUMAN AND L11(5A)GENE/Q

TOTAL FOR ALL FILES
L72        236 L12(5A) HUMAN AND L12(5A) GENE/Q

=> s l36 and l72
FILE 'MEDLINE'
L73          9 L25 AND L61

FILE 'SCISEARCH'
L74         10 L26 AND L62

FILE 'LIFESCI'
L75          7 L27 AND L63

FILE 'BIOTECHDS'
L76          1 L28 AND L64

FILE 'BIOSIS'
```

```
L77         10 L29 AND L65

FILE 'EMBASE'
L78          8 L30 AND L66

FILE 'HCAPLUS'
L79         22 L31 AND L67

FILE 'NTIS'
L80          0 L32 AND L68

FILE 'ESBIOBASE'
L81          9 L33 AND L69

FILE 'BIOTECHNO'
L82          9 L34 AND L70

FILE 'WPIDS'
L83          0 L35 AND L71

TOTAL FOR ALL FILES
L84         85 L36 AND L72

=> dup rem l60,l84
PROCESSING COMPLETED FOR L60
PROCESSING COMPLETED FOR L84
L85          28 DUP REM L60 L84 (66 DUPLICATES REMOVED)

=> d tot

L85  ANSWER 1 OF 28  HCAPLUS  COPYRIGHT 2005 ACS on STN
TI   Human homologs of BVP and CDC14: characterization of new
     dual specificity phosphatases
SO   (2000) 161 pp.  Avail.: UMI, Order No. DA3017796
     From: Diss. Abstr. Int., B 2001, 62(6), 2603
AU   Deshpande, Tarangini
AN   2002:361836  HCAPLUS
DN   137:196416

L85   ANSWER 2 OF 28  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
TI    Novel dual-specificity mitogen-activated protein-kinase polypeptide
      useful in screening assays for identifying agents that modulate activity
      of the protein which are useful for treating cancer and autoimmune
      diseases;
         vector-mediated gene transfer and expression in host cell and antibody
AU    Luche R M; Wei B
AN    2001-01529  BIOTECHDS
PI    WO 2000060092 12 Oct 2000

L85   ANSWER 3 OF 28  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
TI    New isolated nucleic acid molecules encoding human nuclear
      dual specificity phosphatase-like protein for
      diagnosis of androgen independent prostate cancers;
         vector-mediated gene transfer and expression in mammal cell and
         monoclonal antibody
AU    Richardson J; Vassiliadis J; Shyjan A W
AN    2000-12150  BIOTECHDS
PI    WO 2000039277 6 Jul 2000

L85  ANSWER 4 OF 28  HCAPLUS  COPYRIGHT 2005 ACS on STN
TI   mVH1, a dual-specificity phosphatase whose expression is cell cycle
     regulated
SO   Mammalian Genome (2000), 11(12), 1154-1156
     CODEN: MAMGEC; ISSN: 0938-8990
```

AU Zhang, Xin-Min; Dormady, Shane P.; Chaung, Wenren; Basch, Ross S.
AN 2001:8820 HCAPLUS
DN 135:89064

L85 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI FYVE-DSP1, a Dual-Specificity Protein Phosphatase Containing an FYVE Domain
SO Biochemical and Biophysical Research Communications (2000), 270(1), 222-229
CODEN: BBRCA9; ISSN: 0006-291X
AU Zhao, Runxiang; Qi, Ying; Zhao, Zhizhuang Joe
AN 2000:194610 HCAPLUS
DN 133:55190

L85 ANSWER 6 OF 28 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI The tooth, the whole tooth, and nothing but the tooth.
SO AAAS Annual Meeting and Science Innovation Exposition, (February 17-22 2000) Vol. 166, pp. A50. print.
Meeting Info.: 166th National Meeting of the American Association for the Advancement of Science (AAAS) and Science Innovation Exposition. Washington, D.C., USA. February 17-22, 2000.
AU MacDougall, Mary [Reprint Author]
AN 2003:257563 BIOSIS

L85 ANSWER 7 OF 28 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 3
TI Molecular cloning of a human dentin sialophosphoprotein gene
SO EUROPEAN JOURNAL OF ORAL SCIENCES, (FEB 2000) Vol. 108, No. 1, pp. 35-42. ISSN: 0909-8836.
AU Gu K (Reprint); Chang S R; Ritchie H H; Clarkson B H; Rutherford R B
AN 2000:147252 SCISEARCH

L85 ANSWER 8 OF 28 LIFESCI COPYRIGHT 2005 CSA on STN
TI Charcot-Marie-Tooth type 4B is caused by mutations in the gene encoding myotubularin-related protein-2
SO Nature Genetics [Nat. Genet.], (20000500) vol. 25, no. 1, pp. 17-19. ISSN: 1061-4036.
AU Bolino, A.; Muglia, M.; Conforti, F.L.; LeGuern, E.; Salih, M.A.M.; Georgiou, D.-M.; Christodoulou, K.; Hausmanowa-Petrusewicz, I.; Mandich, P.; Schenone, A.; Gambardella, A.; Bono, F.; Quattrone, A.; Devoto, M.; Monaco, A.P.*
AN 2000:87091 LIFESCI

L85 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI **Dual specificity phosphatase** PTEN and methods of use and structure of PTEN **gene**
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
IN Tonks, Nicholas K.; Myers, Michael P.
AN 1999:64950 HCAPLUS
DN 130:135002

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9902704	A2	19990121	WO 1998-US14205	19980708
WO 9902704	A3	19990401		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9884794	A1	19990208	AU 1998-84794	19980708

L85 ANSWER 10 OF 28 Elsevier BIOBASE COPYRIGHT 2005 Elsevier Science B.V. on STN DUPLICATE
AN 2000013706 ESBIOBASE
TI Molecular cloning and characterization of a novel deal-specificity protein phosphatase possibly involved in spermatogenesis
AU Nakamura K.; Shima H.; Watanabe M.; Haneji T.; Kikuchi K.
CS H. Shima, Section of Biochemistry, Institute of Immunological Science, Hokkaido University, Kita-15, Nishi-7, Kita-ku, Sapporo 060-0815, Japan. E-mail: hshima@imm.hokudai.ac.jp
SO Biochemical Journal, (15 DEC 1999), 344/3 (819-825), 49 reference(s) CODEN: BIJOAK ISSN: 0264-6021
DT Journal; Article
CY United Kingdom
LA English
SL English

L85 ANSWER 11 OF 28 MEDLINE on STN DUPLICATE 5
TI Analysis of the desmoplakin gene reveals striking conservation with other members of the plakin family of cytolinkers.
SO Experimental dermatology, (1999 Dec) 8 (6) 462-70.
Journal code: 9301549. ISSN: 0906-6705.
AU Green K J; Guy S G; Cserhalmi-Friedman P B; McLean W H; Christiano A M; Wagner R M
AN 2000062271 MEDLINE

L85 ANSWER 12 OF 28 MEDLINE on STN DUPLICATE 6
TI Genomic characterization of **human DSPG3.**
SO Genome research, (1999 May) 9 (5) 449-56.
Journal code: 9518021. ISSN: 1088-9051.
AU Deere M; Dieguez J L; Yoon S J; Hewett-Emmett D; de la Chapelle A; Hecht J T
AN 1999263231 MEDLINE

L85 ANSWER 13 OF 28 MEDLINE on STN DUPLICATE 7
TI Genomic structure, chromosomal location, and mutation analysis of the human CDC14A gene.
SO Genomics, (1999 Jul 15) 59 (2) 248-51.
Journal code: 8800135. ISSN: 0888-7543.
AU Wong A K; Chen Y; Lian L; Ha P C; Petersen K; Laity K; Carillo A; Emerson M; Heichman K; Gupte J; Tavtigian S V; Teng D H
AN 1999339990 MEDLINE

L85 ANSWER 14 OF 28 MEDLINE on STN DUPLICATE 8
TI Rat dentin matrix protein 3 is a compound protein of rat dentin sialoprotein and phosphophoryn.
SO Connective tissue research, (1999) 40 (1) 49-57.
Journal code: 0365263. ISSN: 0300-8207.
AU George A; Srinivasan RThotakura S R; Liu K; Veis A
AN 2000231419 MEDLINE

L85 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Characterization of dermatan sulfate proteoglycan 3 (DSPG3) and cartilage oligomeric matrix protein
SO (1998) 190 pp. Avail.: UMI, Order No. DA9828232
From: Diss. Abstr. Int., B 1998, 59(4), 1474
AU Deere, Michelle Williams
AN 1998:571011 HCAPLUS
DN 129:184976

L85 ANSWER 16 OF 28 MEDLINE on STN DUPLICATE 9
TI Characterization of the myotubularin **dual specificity phosphatase gene** family from yeast to **human.**
SO Human molecular genetics, (1998 Oct) 7 (11) 1703-12.

Journal code: 9208958. ISSN: 0964-6906.
AU Laporte J; Blondeau F; Buj-Bello A; Tentler D; Kretz C; Dahl N; Mandel J L
AN 1998409499 MEDLINE

L85 ANSWER 17 OF 28 MEDLINE on STN DUPLICATE 10
TI Pten is essential for embryonic development and tumour suppression.
SO Nature genetics, (1998 Aug) 19 (4) 348-55.
Journal code: 9216904. ISSN: 1061-4036.
AU Di Cristofano A; Pesce B; Cordon-Cardo C; Pandolfi P P
AN 1998361160 MEDLINE

L85 ANSWER 18 OF 28 MEDLINE on STN DUPLICATE 11
TI Refined mapping of the **human** dentin sialophosphoprotein (**DSPP**) **gene** within the critical dentinogenesis imperfecta type II and dentin dysplasia type II loci.
SO European journal of oral sciences, (1998 Jan) 106 Suppl 1 227-33.
Journal code: 9504563. ISSN: 0909-8836.
AU MacDougall M
AN 1998200300 MEDLINE

L85 ANSWER 19 OF 28 MEDLINE on STN DUPLICATE 12
TI Chromosomal localization of three **human dual specificity phosphatase genes** (DUSP4, DUSP6, and DUSP7).
SO Genomics, (1997 Jun 15) 42 (3) 524-7.
Journal code: 8800135. ISSN: 0888-7543.
AU Smith A; Price C; Cullen M; Muda M; King A; Ozanne B; Arkinstall S; Ashworth A
AN 97349124 MEDLINE

L85 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Assignment of dentin sialophosphoprotein (**DSPP**) to the critical DGI2 locus on **human** chromosome 4 band q21.3 by in situ hybridization
SO Cytogenetics and Cell Genetics (1997), 79(1-2), 121-122
CODEN: CGCGBR; ISSN: 0301-0171
AU MacDougall, M.; Simmons, D.; Luan, X.; Gu, T. T.; DuPont, B. R.
AN 1998:276313 HCAPLUS
DN 129:50311

L85 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI The dual specificity phosphatases M3/6 and MKP-3 are highly selective for inactivation of distinct mitogen-activated protein kinases
SO Journal of Biological Chemistry (1996), 271(44), 27205-27208
CODEN: JBCHA3; ISSN: 0021-9258
AU Muda, Marco; Theodosiou, Aspasia; Rodrigues, Nanda; Boschert, Ursula; Camps, Montserrat; Gillieron, corine; Davies, Kay; Ashworth, Alan; Arkinstall, Steve
AN 1996:681481 HCAPLUS
DN 126:3595

L85 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Differential regulation of the MAP, SAP and RK/p38 kinases by Pyst1, a novel cytosolic dual-specificity phosphatase
SO EMBO Journal (1996), 15(14), 3621-3632
CODEN: EMJODG; ISSN: 0261-4189
AU Groom, Linda A.; Sneddon, Alan A.; Alessi, Dario R.; Dowd, Stephen; Keyse, Stephen M.
AN 1996:479542 HCAPLUS
DN 125:191459

L85 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13
TI Characterization of **human DSPG3**, a small dermatan sulfate proteoglycan

SO Genomics (1996), 38(3), 399-404
CODEN: GNMCEP; ISSN: 0888-7543
AU Deere, Michelle; Johnson, Jan; Garza, Sonya; Harrison, Wilbur R.; Yoon, Sung-Joo; Elder, Frederick F. B.; Kucherlapati, Raju; Hook, Magnus; Hecht, Jacqueline T.
AN 1997:45371 HCAPLUS
DN 126:127584

L85 ANSWER 24 OF 28 MEDLINE on STN DUPLICATE 14
TI A single mutation converts a novel phosphotyrosine binding domain into a dual-specificity phosphatase.
SO Journal of biological chemistry, (1995 Nov 10) 270 (45) 26782-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Wishart M J; Denu J M; Williams J A; Dixon J E
AN 96070766 MEDLINE

L85 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI A novel dual specificity phosphatase induced by serum stimulation and heat shock
SO Journal of Biological Chemistry (1994), 269(47), 29897-902
CODEN: JBCHA3; ISSN: 0021-9258
AU Ishibashi, Toshio; Boattaro, Donald P.; Michieli, Paolo; Kelley, Christine A.; Aaronson, Stuart A.
AN 1994:674996 HCAPLUS
DN 121:274996

L85 ANSWER 26 OF 28 MEDLINE on STN DUPLICATE 15
TI Genomic structure of the downstream part of the human FLT3 gene: exon/intron structure conservation among genes encoding receptor tyrosine kinases (RTK) of subclass III.
SO Gene, (1994 Aug 5) 145 (2) 283-8.
Journal code: 7706761. ISSN: 0378-1119.
AU Agnes F; Shamoon B; Dina C; Rosnet O; Birnbaum D; Galibert F
AN 94333823 MEDLINE

L85 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Chromosomal assignment of the human genes coding for the major proteins of the desmosome junction, desmoglein DGI (DSG), desmocollins DGII/III (DSC), desmoplakins DPI/II (DSP), and plakoglobin DPIII (JUP)
SO Genomics (1991), 10(3), 640-5
CODEN: GNMCEP; ISSN: 0888-7543
AU Arnemann, Joachim; Spurr, Nigel K.; Wheeler, Grant N.; Parker, Andrew E.; Buxton, Roger S.
AN 1991:672075 HCAPLUS
DN 115:272075

L85 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
TI B cell development regulated by gene rearrangement: arrest of maturation by membrane-bound Dμ protein and selection of DH element reading frames
SO Cell (Cambridge, MA, United States) (1991), 65(1), 47-54
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AU Gu, Hua; Kitamura, Daisuke; Rajewsky, Klaus
AN 1991:423443 HCAPLUS
DN 115:23443

=> d ab 4,5,9,10,13,16,19,21,22,25

L85 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Recently, a new family of dual-specificity protein phosphatases has been identified, which can hydrolyze both phosphotyrosine and phosphoserine. The first eukaryotic member of the family, yVH1, was cloned from Saccharomyces cerevisiae by searching the yeast genome for vaccinia VH1 homologs. The identification of a new dsPTP that is the mouse ortholog of

yVH1, is reported. Both the mouse and human homologs of the yeast VH1 gene, were isolated. MVH1 (Dusp12) expression is cell cycle related and accumulates during the G1/S phase. While the substrates for mVH1 are not known, it seems likely that this **gene**, like other **dual -specificity phosphatases**, plays a role in regulating cell division and may be involved in neoplastic transformation.

L85 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Dual-specificity protein phosphatases (DSPs) dephosphorylate proteins at Ser/Thr and Tyr. FYVE domain is a double zinc finger motif which specifically binds phosphatidylinositol(3)-phosphate. Here, we report a novel dual specificity phosphatase that contains a FYVE domain at the C-terminus. We designate the protein FYVE-DSP1. Mol. cloning yielded three isoforms of the enzyme presumably derived from alternate RNA splicing. **Sequence** alignment revealed that the catalytic phosphatase domain of FYVE-**DSP1** closely resembled that of myotubularin, while its FYVE domain has all the conserved amino acid residues found in other proteins of the same family. Recombinant FYVE-DSP1 is partitioned in both cytosolic and membrane fractions. It dephosphorylates proteins phosphorylated on Ser, Thr, and Tyr residues and low mol. weight phosphatase substrate para-nitrophenylphosphate. It shows typical characteristics of other DSPs and protein tyrosine phosphatases (PTPs). These include inhibition by sodium vanadate and pervanadate, pH dependency, and inactivation by mutation of the key cysteinyl residue at the phosphatase signature motif. Finally, PCR analyses demonstrated that FYVE-**DSP1** is widely distributed in **human** tissues but different spliced forms expressed differently. (c) 2000 Academic Press.

L85 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB PTEN proteins and altered PTEN proteins, and the nucleic acid mols. encoding them are described. PTEN is a protein phosphatase and is a tumor suppressor with sequence homol. to protein tyrosine phosphatases. The cDNA sequence of human PTEN gene is presented. Also described are methods of diagnosis and treatment, e.g., of prostate cancer, utilizing compns. comprising PTEN or altered PTEN or nucleic acid mols. encoding PTEN or altered PTEN.

L85 ANSWER 10 OF 28 Elsevier BIOBASE COPYRIGHT 2005 Elsevier Science B.V. on STN DUPLICATE
AB Dual-specificity protein phosphatases (DSPs) play roles in the regulation of mitogenic signal transduction for extracellular stimulation and the cell cycle. In the present study, we identified a novel **DSP**, termed TMDP (testis- and skeletal-muscle-specific **DSP**). Nucleotide **sequence** analysis of TMDP cDNA indicated that the open reading frame of 597 bp encodes a protein of 198 amino acid residues with a predicted molecular mass of 22.5 kDa. The deduced amino acid **sequence** contains a motif for a conserved catalytic domain of **DSPs** and shows highest similarity to **human** Vaccinia HI-related phosphatase (45.5% identity) but low homology to the mitogen-activated protein kinase phosphatase and CDC25 subfamilies of DSPs. Recombinant TMDP protein exhibited intrinsic phosphatase activity towards both phospho-seryl/threonyl and -tyrosyl residues of myelin basic protein, with similar specific activities in vitro. Northern-blot analysis revealed that TMDP is most abundantly expressed in the testis. The expression in the testis is characterized as follows: (i) TMDP mRNA first appeared 3 weeks after birth, corresponding to the time that meiosis begins; (ii) TMDP mRNA was abundant in fractionated spermatocytes and round spermatids; and (iii) hybridization in situ showed that the TMDP mRNA is localized in spermatocytes and/or spermatids in seminiferous tubules. These data demonstrate that TMDP is a novel DSP abundantly expressed in the testis and suggest that TMDP may be involved in the regulation of meiosis and/or differentiation of testicular germ cells during spermatogenesis.

L85 ANSWER 13 OF 28 MEDLINE on STN DUPLICATE 7
AB **Human** CDC14A is a **dual-specificity phosphatase** that shares **sequence** similarity with the recently identified tumor suppressor, MMAC1/PTEN/TEP1. By radiation hybrid mapping, we localized CDC14A to chromosome band 1p21, a region that has been shown to exhibit loss of heterozygosity in highly differentiated breast carcinoma and malignant mesothelioma. We have mapped the exon-intron structure of CDC14A gene and found an in-frame ATG at 14 codons upstream of the previously reported start site (GenBank Accession Number AF000367). In screening a panel of 136 cDNAs from tumor cell lines for coding mutations, we have identified a 48-bp in-frame deletion in the cDNA of the breast carcinoma cell line, MDA-MB-436. This deletion is the result of an acceptor splice site mutation (AG to AT) in intron 12 that causes the skipping of exon 13 in the gene. Loss of expression of the wildtype allele in the same breast cell line supports the possibility that CDC14A may be a tumor suppressor gene that is targeted for inactivation during tumorigenesis.

L85 ANSWER 16 OF 28 MEDLINE on STN DUPLICATE 9
AB X-linked myotubular myopathy (XLMTM) is a severe congenital muscle disorder due to mutations in the MTM1 gene. The corresponding protein, myotubularin, contains the consensus active site of tyrosine phosphatases (PTP) but otherwise shows no homology to other phosphatases. Myotubularin is able to hydrolyze a synthetic analogue of tyrosine phosphate, in a reaction inhibited by orthovanadate, and was recently shown to act on both phosphotyrosine and phosphoserine. This gene is conserved down to yeast and strong homologies were found with **human** ESTs, thus defining a new **dual specificity phosphatase** (**DSP**) family. We report the presence of novel members of the MTM gene family in Schizosaccharomyces pombe, Caenorhabditis elegans, zebrafish, Drosophila, mouse and man. This represents the largest family of DSPs described to date. Eight MTM-related genes were found in the human genome and we determined the chromosomal localization and expression pattern for most of them. A subclass of the myotubularin homologues lacks a functional PTP active site. Missense mutations found in XLMTM patients affect residues conserved in a Drosophila homologue. Comparison of the various genes allowed construction of a phylogenetic tree and reveals conserved residues which may be essential for function. These genes may be good candidates for other genetic diseases.

L85 ANSWER 19 OF 28 MEDLINE on STN DUPLICATE 12
AB Mitogen-activated protein (MAP) kinase phosphatases constitute a growing family of dual specificity phosphatases thought to play a role in the dephosphorylation and inactivation of MAP kinases and are therefore likely to be important in the regulation of diverse cellular processes such as proliferation, differentiation, and apoptosis. For this reason it has been suggested that MAP kinase phosphatases may be tumor suppressors. We have determined the chromosomal locations of three **human dual specificity phosphatase genes** by fluorescence in situ hybridization and radiation hybrid mapping. The genes were localized to three different chromosomes, MKP2 (DUSP4) to 8p11-p12, MKP3 (DUSP6) to 12q22-q23, and MKPX (DUSP7) to 3p21. This will allow the potential roles of these genes in disease processes to be evaluated.

L85 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The mitogen-activated protein (MAP) kinase family includes extracellular signal-regulated kinase (ERK), c-Jun, NH2-terminal kinase/stress-activated protein kinase (JNK/SAPK) and p38/RK/CSBP (p38) as structurally and functionally distinct enzyme classes. Here we describe two new dual specificity phosphatases of the CL100/MKP-1 family that are selective for inactivating ERK or JNK/SAPK and p38 MAP kinases when expressed in COS-7 cells. M3/6 is the first phosphatase of this family to display highly

specific inactivation of JNK/SAPK and p38 MAP kinases. Although stress-induced activation of p54 SAPKβ, p46 SAPKγ (JNK1) or p38 MAP kinases is abolished upon co-transfection with increasing amts. of M3/6 plasmid, epidermal growth factor-stimulated ERK1 is remarkably insensitive even to the highest levels of M3/6 expression obtained. In contrast to M3/6, the **dual specificity phosphatase** MKP-**3** is selective for inactivation of ERK family MAP kinases. Low level expression of MKP-3 blocks totally epidermal growth factor-stimulated ERK1, whereas stress-induced activation of p54 SAPKβ and p38 MAP kinases is inhibited only partially under identical conditions. Selective regulation by M3/6 and MKP-3 was also observed upon chronic MAP kinase activation by constitutive p21ras GTPases. Hence, although M3/6 expression effectively blocked p54 SAPKβ activation by p21rac (G12V), ERK1 activated by p21ras (G12V) was insensitive to this phosphatase. ERK1 activation by oncogenic p21ras was, however, blocked totally by co-expression of MKP-3. This is the first report demonstrating reciprocally selective inhibition of different MAP kinases by two distinct dual specificity phosphatases.

L85 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The Pyst1 and Pyst2 mRNAs encode closely related proteins, which are novel members of a family of dual-specificity MAP kinase phosphatases typified by CL100/MKP-1. Pyst1 is expressed constitutively in human skin fibroblasts and, in contrast to other members of this family of enzymes, its mRNA is not inducible by either stress or mitogens. Furthermore, unlike the nuclear CL100 protein, Pyst1 is localized in the cytoplasm of transfected Cos-1 cells. Like CL100/MKP-1, Pyst1 dephosphorylates and inactivates MAP kinase in vitro and in vivo. In addition, Pyst1 is able to form a phys. complex with endogenous MAP kinase in Cos-1 cells. However, unlike CL100, Pyst1 displays very low activity towards the stress-activated protein kinases (SAPKs) or RK/p38 in vitro, indicating that these kinases are not physiol. substrates for Pyst1. This specificity is underlined by the inability of Pyst1 to block either the stress-mediated activation of the JNK-1 SAP kinase or RK/p38 in vivo or to inhibit nuclear signalling events mediated by the SAP kinases in response to UV radiation. These results provide the 1st evidence that the members of the MAP kinase family of enzymes are differentially regulated by dual-specificity phosphatases and also indicate that the MAP kinases may be regulated by different members of this family of enzymes depending on their subcellular location.

L85 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AB To identify new members of a family of protein-tyrosine phosphatases (PTPs), of which VH1 is prototype, we screened a B5/589 human mammary epithelial cell cDNA library by low stringency hybridization with probes for the catalytic domains of the human VHR and mouse 3CH134 phosphatases. Two overlapping clones of 1.8 and 2.5 kilobase pairs were detected by 3CH134 but not VHR probes. Sequence anal. of the largest clone, B23, revealed a 2470-nucleotide open reading frame encoding a novel protein. Within the 397 amino acid sequence, the HCXAGXXR signature sequence for PTPs was located at positions 261-268. The closest similarities were to 3CH134, its human homolog CL100, and PAC-1, PTPs induced as early response genes to mitogen stimulation. Less relatedness was observed with VHR and VH1 **dual specificity phosphatases** of **human** and vaccinia virus, resp. A bacterially expressed recombinant protein containing the catalytic domain of B23 showed significant but consistently lower activity than VHR in vitro. Among the substrates tested, B23 displayed the highest relative activity toward phosphorylated extracellular signal regulated kinase-1, suggesting that it may be a target for B23 activity in vivo. The B23 transcript was detected in a wide variety of normal human tissues, with relatively high expression in pancreas and brain. B23 was induced by serum stimulation of human fibroblasts as well as by heat shock with similar kinetics to those observed with CL100. Thus, B23 is a new human protein phosphatase which appears to

be regulated in response to mitogenic signaling and at least some forms of stress.

=> log y

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